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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/787,096

02/27/2004

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EXAMINER

HAILU, KIBROM T

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

01/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/787,096

Applicant(s)

RIVARD ET AL.

Examiner

Kibrom T. Hailu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicants' arguments received on November 2, 2007 have been fully considered but they are not persuasive because the cited references disclose the claimed invention. Therefore, the finality of this Office Action is deemed proper.

Regarding claims 17, 24 and 31, the Examiner provides new reference to meet the newly added limitations of the claims. Please, see the rejections.

Regarding claim 32, On page 9 of the REMARKS, the Applicants argue that the St. Pierre's reference (US 6,853,841 B1) "does not contemplate using different types of headers. St. Pierre only uses a single header type with different header fields".

With all due respect, the Examiner disagrees with the Applicants. Contrary to the Applicants' assertion, St. Pierre discloses multiple header types. St. Pierre discloses a message header 74 (fig. 5) as a general header, which is equivalent to the first limitation of the claim. And off course, messages are being capable of sent with each of the messages having respective headers (see Fig. 4A and 4B). Also messages cannot be sent without being prepared and/or generated. St. Pierre further discloses commands request header 126 or 166, which you can also call it command header, and it comprises command codes. St. Pierre also discloses get image response header (for example 250). This is data header because it precedes the image message type of the packet format, and the header includes uniquely identifying information such as ID and version of the message. Finally, St. Pierre discloses an answer or respond header (such as 138 or 178), and this header is a respond to the commands sent.

Therefore, the Applicants' argument that St. Pierre doesn't disclose utilizing multiple header types is persuasive, thus the reference perfectly discloses the claimed limitations.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 32-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are not statutory because the applicant claims message structures and/or headers and codes sending over a communication protocol. That is, the applicant claims different kinds of header structures, which include command codes, fields and identifies without any instructional execution and/or physical transformation. The changes that the Applicant made to the claims didn't overcome the 101 rejection. The examiner reread the claims in light of the specification to see whether the claimed invention is statutory or not. The specification doesn't provide any explanation of instructional execution and/or transformation. The specification explains only structure and types of headers. The claimed invention must produce a useful, concrete, and tangible result to be statutory. [See MPEP 2106.01].

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 17, 19-22, 24, 26-29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Sharony et al. (US 6,925,094 B2).

Regarding claim 17, Sharony discloses a method for communicating video data from a sender to a receiver over a communication channel (Fig. 1, e.g. from AP 10 to MU 20), said video data being comprised of a series of image packets (col. 8, lines 57-63; col. 9, lines 20-22. Note also that an image packet is just video data, e.g. see Nishikawa, US patent 6,032,180), said method comprising: said receiver receiving said image packets from said sender (col. 9, lines 15-15), each image packet including an identifier number which uniquely identifies said each image packet (col. 9, lines 33-42), and an address which uniquely identifies the location of said each image packet in said video data to enable said sender to directly locate a specified one of said packets using a corresponding address (col. 10, lines 37-39, 49-52, explains that the receiver requests the missing packet to the transmitter or AP including the sequence number and the address of the packet. This way, the sender knows which packet to resend or retransmit. Therefore, the transmitted stream of packets include the sequence number and the stream address of the packet); for each packet received, said receiver examining said identifier number to identify the presence of a missing packet indicated by a corresponding missing packet identifier number (col. 9, line 55-col. 10, line 13); if said missing packet is identified, said receiver preparing a request to have said missing packet resent, said request identifying said missing packet identifier number and a corresponding missing packet address; and said receiver sending said request to said sender wherein said missing packet address can be used to directly locate said missing packet and return said missing packet to said receiver (col. 10, lines 36-57).

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Regarding claims 24 and 31, the claims include the features corresponding to subject matter mentioned above in the rejection to claim 17. That is, the claims are mere reformulation of claim 17. Therefore, the same rejection is applicable hereto.

Regarding claims 19 and 26, Sharony discloses having said sender prepare said image packet and send said image packet to said receiver and having said sender receive said request, locate said missing packet and send said missing packet back to said receiver (col. 10, lines 36-55).

Regarding claim 20 and 27, Sharony discloses comprising having said receiver wait for a next image packet upon sending said request (col. 10, lines 30-47).

Regarding claims 21 and 28, Sharony discloses if said missing packet is not identified, said receiver waits for a next image packet (col. 9, line 60-col. 10, line 4, explains if the serial number or identifier of the expected packet is not received or not identified because it is missed, then the receiver proceed to receive the next identifier. Meaning the receiver waits for the next packet before it declares the packet is missing and/or send a request for retransmission of the missed packet).

Regarding claims 22 and 29, Sharony discloses image packets and said request are transmitted via an underlying protocol (see claim 18).

6. Claims 32, 36 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by St. Pierre (US 6,853,841 B1).

Regarding claim 32, St. Pierre discloses a method for communicating with and controlling a video source over a network using an underlying protocol (col. 3, lines 42-53), said method comprising: preparing one or more messages capable of being sent using said underlying

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protocol (Figs. 4A and 4B), each message having a message header (Fig. 5, “message header 74”); for sending commands to said video source (fig. 7A), utilizing a command header (fig. 7B, “command header 126”), said command header comprising one or more command codes to signify a specific action to control operation of said video source (Fig. 7B; col. 9, lines 58-65); for sending data to said video source, utilizing a data header, said data header (get image response header) comprising unique identifying information for said data (Fig. 10A and 10B; col. 11, lines 36-43, illustrates sending the image data with the data header, which in this case is the get image response header. The get image response header is actually data header because it is followed by the actual image data, and includes unique identifying information such as the session ID, version, size and so on); for providing a response to received commands, utilizing an answer header (Fig. 7B, “response or do response header”), said answer header comprising an echo of a command sent using a received command header and an acknowledgement identifier (Fig. 8B; col. 10, lines 36-45; col. 9, line 65-col. 10, line 11; col. 9, lines 35-45).

Regarding claim 36, St. Pierre discloses command header specifies a request ID (Fig. 7B, “session ID”), a message length (the length of text string field 154), a command address (URL address) and includes command data (message body 134).

Regarding claim 39, St. Pierre discloses said data header has unique values for a regular message and a re-send message (col. 11, lines 37-39, the data header or get image response header includes unique values session ID and command respond code for the image message and respond or resend message).

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharony in view of Shamoon et al. (US 7,233,948 B1).

Sharony discloses the data packet contains bits to indicate data type (col. 3, lines 33-36). However, Sharony doesn't disclose the image packets are sent in a data header message, said data header message comprising a video type definition and a time stamp for tracing said image packet to a known transmittal time.

Shamoon teaches the image packets are sent in a data header message, said data header message comprising a video type definition and a time stamp for tracing said image packet to a known transmittal time (see fig. 2; col. 5, lines 1-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a header comprising video type and time stamp as taught by

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Shamoon into the transmission of Sharony to solve the problem of interoperability, security and rights management information.

10. Claims 23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharony in view of Nishikawa (US 6,032,180).

As applied above, Sharony discloses the packets are transmitted in an underlying protocol. However, Sharony doesn't explicitly disclose the underlying protocol is using Internet Protocol (IP).

Nishikawa teaches the underlying protocol is using Internet Protocol (IP) (see fig. 4A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an IP underlying protocol as taught by Nishikawa into the transmission method and system of Sharony in order to provide a video image data transmission in which a real time image or video display without disorders or interruptions can be realized.

11. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over St. Pierre in view of Sourani (US 6,631,132 B1).

As applied above, St. Pierre discloses sending different kind of headers. However, St. Pierre doesn't explicitly disclose sending an interrupt to said remote device, utilizing an interrupt header.

Sourani teaches sending an interrupt to said remote device, utilizing an interrupt header (col. 10, lines 1-2; col. 1, lines 60-67; etc.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate sending an interrupt to the receiver or remote device using an interrupt header as taught by Sourani into the image transmission of St. Pierre in order to send

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urgent packets by interrupting those packets that are less urgent using the interrupt header, thus reduce delay.

12. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over St. Pierre in view of Sharony.

Regarding claim 34, St. Pierre discloses data is a video sent as a series of image packets and said unique identifying information (Fig. 10B).

St. Pierre doesn't explicitly disclose a unique identifier and an address which locates each image packet in said video.

Sharony teaches a unique identifier and an address which locates each image packet in said video (col. 9, lines 33-42. Also, col. 10, lines 37-39, 49-52, explains that the receiver requests the missing packet to the transmitter or AP including the sequence number and the address of the packet. This way, the sender knows which packet to resend or retransmit. Therefore, the transmitted stream of packets include the sequence number or unique identifier and the stream address of the packet).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate uniquely identifying information such as identifier or sequence number and address to the packet as taught by Sharony into the network transmission of St. Pierre in order to easily recover missing packets and prioritize them, and thus delay (unwanted in the real time packets) would be avoided.

Regarding claim 35, which inherits claim 34 includes the features corresponding to subject matter mentioned above in the rejection to claim 17, and the same rejection is applicable hereto.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate uniquely identifying information such as identifier or sequence number and address to the packet by the transmitter, and the receiver easily identify or locate the missing packet and request the sender, and the sender retransmits the missing packets based on their identifiers and addresses as taught by Sharony into the network transmission of St. Pierre in order to easily recover missing packets and prioritize them, and thus delay (unwanted in the real time packets) would be avoided and bandwidth would be saved.

13. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over St. Pierre in view of Buchholz et al. (US 5,440,545).

St. Pierre discloses the data field defining the command code (Fig. 7B; col. 9, lines 61-62, “command opcode 130 set to the number representing the operation currently being performed). However, St. Pierre doesn’t explicitly disclose the opcode 130 provides unique codes corresponding to a register read command, a register write command, a configuration read command, and a configuration write command.

Buchholz teaches the header 420 includes virtual circuit identifier (ID) field 510 (same as command code). The virtual ckt ID 510 in turn points to a register read command, a register write command, a configuration read command, and a configuration write command (Fig. 4 and 5; col. 6, lines 16-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a header with command code that includes unique codes or identifiers for pointing or configuring and register reads and writes command as taught by Buchholz into the network protocol message of St. Pierre thereby forming a chain or link of

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addresses for defining which buffer location the message data portion of a received transmission packet not requiring reassembly will be stored (Buchholz, col. 6, lines 31-34).

14. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over St. Pierre in view of Gubbi et al. (US 7,093,015 B2).

As applied above, St. Pierre discloses the command code data field provides unique codes corresponding to a get device info action command; a trigger action command (Fig. 6A; 7A; col. 9, lines 12-25; col. 10, lines 13-21). St. Pierre doesn't explicitly disclose re-send packet action command, and the command code data field further provides a unique code corresponding to a module reset action command.

Gubbi, in the same field of endeavor, teaches re-send packet action command (col. 21, lines 27-31), and the command code data field further provides a unique code corresponding to a module reset action command (col. 21, lines 7-10, "reset client").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the key frame request that is sent or is originated at the receiving side of the video transmission for retransmission when there is a frame loss at the receiving end, and the reset client requests the receiving client 16 to reset itself and start afresh from the connection request stage as taught by Gubbi into the network protocol message of St. Pierre in order to achieve efficient transmission of data.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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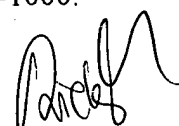
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kibrom T. Hailu whose telephone number is (571)270-1209. The examiner can normally be reached on Monday-Thursday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KTH
01/16/08


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